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### REMARKS

Applicant sincerely appreciates the thorough examination of the present application as evidenced by the Final Official Action of February 12, 2002. Applicant further appreciates the indication of allowance of Claims 1-28 and that Claims 29-44 are not anticipated or rendered obvious by the art of record. The rejected independent Claims 29, 33 and 43 have been amended above to incorporate the recitations from the original patent prosecution added to Claims 1 and 24 by the January 12, 1994 (dated January 10, 1994) amendment. Applicant requests that the Examiner consider the rejected claims once more in light of the amendments above and the arguments below.

#### Legal Standards for the Recapture Doctrine

Various limitations have been applied by the courts on the type of errors that qualify as "error" under Section 251. In general "error" is liberally interpreted and may include an "attorney's failure to appreciate the full scope of the invention." *In re Mentor Corp. v. Coloplast, Inc.*, 998 F.2d 992, 995 (Fed. Cir. 1993)(quoting *In re Wilder*, 736 F.2d 1516, 1519 (Fed. Cir. 1984)). However, the recapture rule "prevents a patentee from regaining through reissue the subject matter that he surrendered in an effort to obtain allowance of the original claims." *Pannu v. Storz Instruments, Inc.*, 258 F.3d 1366, 1370-71 (Fed. Cir. 2001)(quoting *In re Clement*, 131 F.3d 1464, 1468 (Fed. Cir. 1997)).

The process for application of the recapture rule was more fully described in *Pannu*:

Reissued claims that are broader than the original patent's claims in a manner directly pertinent to the subject matter surrendered during prosecution are impermissible. Application of the recapture rule is a three-step process. The first step is to "determine whether and in what 'aspect' the reissue claims are broader than the patent claims." "The second step is to determine whether the broader aspects of the reissued claim related to the surrendered subject matter." Finally, the court must determine whether the reissued claims were materially narrowed in other respects to avoid the recapture rule.

*Pannu*, 258 F.3d at 1371 (citations omitted).

With respect to the third step in the recapture analysis, the Court in *Mentor* stated that the added limitations relied on as narrowing the claim must narrow the claim in a "material

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respect compared with their broadening." *Mentor*, 998 F.2d at 996 (emphasis added); *see also, Clement*, 131 F.3d at 1471 (finding recapture applied for claim "broader than it is narrower in a manner directly pertinent to the subject matter that Clement surrendered throughout the prosecution.")(emphasis added).

The third step was further analyzed in *Hester Industries v. Stein, Inc.*, 142 F.3d 1472 (Fed. Cir. 1998). The court in *Hester* stated that the recapture rule may be overcome "when the reissue claims are materially narrower in other overlooked aspects of the invention. The purpose of this exception to the recapture rule is to allow the patentee to obtain through reissue a scope of protection to which he is rightfully entitled for such overlooked aspects." *Hester*, 142 F.3d at 1482-83 (emphasis added).

Another recapture case, *Ball Corp. v. United States*, 729 F.2d 1429 (Fed. Cir. 1984), preceded the development of the three step test described above. Nonetheless, the court in *Ball* stated that, when determining whether the applicant had made a deliberate decision that cancelled claims were unpatentable required a focus "on the scope of the claims, not on the individual feature or element purportedly given up during prosecution of the original application." *Ball*, 729 F.2d at 1437.

#### **Independent Claims 29, 33 and 43 Are Not Subject to the Recapture Doctrine**

In order to expedite reissuance of this application, Applicant has amended Claims 29, 33 and 43 above to incorporate recitations added in the January 12, 1994 amendment. Accordingly, the recapture rejection under 35 U.S.C. § 251 is obviated. Applicant requests allowance of Claims 29, 33 and 43.

#### **Independent Claims 30, 31, 34, 35 and 44 Are Not Subject to the Recapture Doctrine**

Claim 30 is directed to a method "for paging a mobile station in a code division multiple access communications system." The method comprises:

- assigning said mobile station to a subgroup of data blocks to be transmitted on a calling channel;
- encoding said subgroup of data blocks using a spread spectrum code assigned to said calling channel; and
- transmitting a paging message to said mobile station in only said subgroup.

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During prosecution of the '470 and '335 applications, which led to the issuance of the patent under examination in this reissue proceeding, all of the claims presented were directed to methods or systems "for transmitting control information and user traffic signals from a first base station to a plurality of mobile stations in a code division multiple access communication system." (Claim 1 of '183 patent (as originally filed a method for "transmitting control and user traffic data from a first base station to a plurality of mobile stations in a code division multiple access communication system")). Thus, at no point during prosecution of the '183 patent were claims presented directed to methods "for paging a mobile station in a code division multiple access communications system" as recited in Claim 30 or the corresponding systems of Claims 34 and 44.

The claims prosecuted in the '183 patent also do not recite "assigning said mobile station to a subgroup of data blocks to be transmitted on a calling channel," "encoding said subgroup of data blocks," and "transmitting a paging message ... in only said subgroup" as recited in Claim 30. Instead of broadening the original claims of the '183 patent, Claims 30, 31, 34, 35 and 44 (and the claims depending therefrom) are directed to an overlooked aspect of the present invention and should not be subjected to rejection under the recapture doctrine.

As noted in the Dent Reissue Declaration at p. 3, Claim 12 of the '183 patent does relate to pending Claim 30 in that it recites "control information carries information for a specific group of mobile stations only at predetermined times." However, these recitations of Claim 12 were not added during prosecution of the '183 patent nor were they identified in the '183 patent application proceedings as the reason for patentability of the '183 patent. In addition, while the recitations of Claim 12 relate to the invention now claimed in Claims 30, 31, 34, 35 and 44, these claims are clearly a distinct and overlooked inventive aspect of the present invention when considered in light of the totality of the recitations of Claim 12 of the '183 patent (including Claim 1 on which it depends) as contrasted with the totality of the recitations of Claim 30. The same analysis applies to the corresponding system Claims 31, 34, 35 and 44. Accordingly, the recapture based rejections of these claims and the claims that depend therefrom should be withdrawn.

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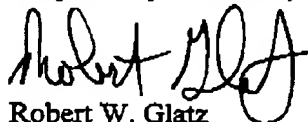
**The Newly Added Claims Are in Form for Allowance**

As noted above, the newly added claims are provided to separately recite the present invention with reference to a base station, a mobile station and a system including both a base station and a mobile station. Accordingly, these claims are in form for allowance for the same reasons the previously pending claims are allowable.

**CONCLUSION**

Applicant respectfully submits that, for the reasons discussed above and in Applicant's previous responses, the claims as amended satisfy the requirements of 35 U.S.C. § 251. This Amendment should be entered as it is being filed with an RCE to provide for entry as of right. Accordingly, Applicant respectfully requests entry of this Amendment and allowance of all the pending claims and passing this application to reissue.

Respectfully submitted,



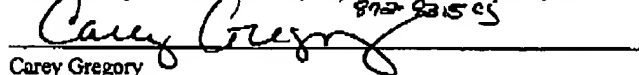
Robert W. Glatz  
Registration No. 36,811

**Customer Number:**



**CERTIFICATE OF MAILING**

I hereby certify that this correspondence is being sent by facsimile transmission to the United States Patent and Trademark Office, Group Art Unit 2664 at (703) 295-2988 on April 8, 2002.



Carey Gregory  
Date of Signature: April 8, 2002  
239206

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**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**In The Claims:**

Please replace Claims 29, 33 and 43 with the following.

29. (Twice Amended) A method for transmitting control information and user traffic signals from a first base station to a plurality of mobile stations in a code division multiple access communication system comprising the steps of:

coding control information using a spread spectrum code unique to control information to form a calling channel signal, wherein a duration of each of a succession of data blocks in the calling channel signal is equal to a duration of a speech coder's analysis period and wherein said control information carries information for a specified group of mobile stations only at predetermined times;

coding each user traffic signal using a spread spectrum code unique to each traffic signal;

adding said calling channel signal and said coded traffic signal to obtain a composite signal;

modulating said composite signal on a radio frequency carrier to form a radio frequency signal;

transmitting said radio frequency signal to said plurality of said mobile stations;

receiving said radio frequency signal at at least one of said mobile stations;

decoding said received signal in a said mobile station to extract said control information and to determine a phase of the calling channel signal; and

decoding said radio frequency signal in said mobile station using said phase of the calling channel to extract traffic information intended for said mobile station.

33. (Twice Amended) A code division multiple access communication system for transmitting control information and user traffic signals from a first base station to a plurality of mobile stations comprising:

means for coding control information using a spread spectrum code unique to control information to form a calling channel signal, wherein a duration of each of a succession of data blocks in the calling channel signal is equal to a duration of a speech coder's analysis

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period and wherein said control information means carries information for a specified group of mobile stations only at predetermined times;

means for coding each user traffic signal using a spread spectrum code unique to each traffic signal;

means for adding said calling channel signal and said coded traffic signal to obtain a composite signal;

means for modulating said composite signal on a radio frequency carrier to form a radio frequency signal;

means for transmitting said radio frequency signal to said plurality of said mobile stations;

means for receiving said radio frequency signal at at least one of said mobile stations;

means for decoding said received signal in said mobile station to extract said control information and to determine a phase of the calling channel signal; and

means for decoding said radio frequency signal in said mobile station using said phase of the calling channel to extract traffic information intended for said mobile station.

43. (Amended) A code division multiple access communication system for transmitting control information and user traffic signals from a first base station to a plurality of mobile stations comprising:

a calling channel modulation generator coding control information using a spread spectrum code unique to control information to form a calling channel signal, wherein a duration of each of a succession of data blocks in the calling channel signal is equal to a duration of a speech coder's analysis period and wherein the control information carries information for a specified group of mobile stations only at predetermined times;

a traffic channel modulation generator coding each user traffic signal using a spread spectrum code unique to each traffic signal;

a summing network adding the calling channel signal and the coded traffic signals to provide a composite signal;

a mixer modulating the composite signal on a radio frequency carrier to form a radio frequency signal;

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a transmit power amplifier transmitting the radio frequency signal via an antenna to the plurality of mobile stations;

a radio receiver receiving the radio frequency signal at at least one of the mobile stations; and

3 a correlator decoding the received signal in the at least one mobile station to extract at least one of control information and traffic information intended for the at least one mobile station, wherein the control information is used to determine a phase of the calling channel signal and the phase of the calling channel signal is used to extract the traffic information.

Sub D 45. (New) A method for transmitting control information and user traffic signals from a first base station to a plurality of mobile stations in a code division multiple access communication system comprising the steps of:

coding control information using a spread spectrum code unique to control information to form a calling channel signal, wherein a duration of each of a succession of data blocks in the calling channel signal is equal to a duration of a speech coder's analysis period and wherein said control information carries information for a specified group of mobile stations only at predetermined times;

coding each user traffic signal using a spread spectrum code unique to each traffic signal;

44 adding said calling channel signal and said coded traffic signal to obtain a composite signal;

modulating said composite signal on a radio frequency carrier to form a radio frequency signal; and

transmitting said radio frequency signal to said plurality of mobile stations.

46. (New) A method for receiving control information and user traffic signals from a first base station at a mobile station in a code division multiple access communication system comprising the steps of:

receiving a radio frequency signal at said mobile station, the radio frequency signal including control information coded using a spread spectrum code unique to control

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information to form a calling channel signal, wherein a duration of each of a succession of data blocks in the calling channel signal is equal to a duration of a speech coder's analysis period, wherein said control information carries information for a specified group of mobile stations only at predetermined times and wherein the radio frequency signal further includes a user traffic signal coded using a spread spectrum code unique to each traffic signal, said calling channel signal and said coded traffic signal being combined to provide a composite signal;

decoding said received signal in a said mobile station to extract said control information and to determine a phase of the calling channel signal; and

decoding said received signal in said mobile station using said phase of the calling channel to extract traffic information intended for said mobile station.

C4 546 02 → 47. (New) A code division multiple access communication system for transmitting control information and user traffic signals from a first base station to a plurality of mobile stations comprising:

means for coding control information using a spread spectrum code unique to control information to form a calling channel signal, wherein a duration of each of a succession of data blocks in the calling channel signal is equal to a duration of a speech coder's analysis period and wherein said control information means carries information for a specified group of mobile stations only at predetermined times;

means for coding each user traffic signal using a spread spectrum code unique to each traffic signal;

means for adding said calling channel signal and said coded traffic signal to obtain a composite signal;

means for modulating said composite signal on a radio frequency carrier to form a radio frequency signal; and

means for transmitting said radio frequency signal to said plurality of mobile stations.

48. (New) A system for receiving control information and user traffic signals from a first base station at a mobile station in a code division multiple access communication



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system comprising:

means for receiving a radio frequency signal at said mobile station, the radio frequency signal including control information coded using a spread spectrum code unique to control information to form a calling channel signal, wherein a duration of each of a succession of data blocks in the calling channel signal is equal to a duration of a speech coder's analysis period, wherein said control information carries information for a specified group of mobile stations only at predetermined times and wherein the radio frequency signal further includes a user traffic signal coded using a spread spectrum code unique to each traffic signal, said calling channel signal and said coded traffic signal being combined to provide a composite signal;

means for decoding said received signal in a said mobile station to extract said control information and to determine a phase of the calling channel signal; and

means for decoding said received signal in said mobile station using said phase of the calling channel to extract traffic information intended for said mobile station.

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Sub D3 49. (New) A code division multiple access communication system for transmitting control information and user traffic signals from a first base station to a plurality of mobile stations comprising:

a calling channel modulation generator that is configured to code control information using a spread spectrum code unique to control information to form a calling channel signal, wherein a duration of each of a succession of data blocks in the calling channel signal is equal to a duration of a speech coder's analysis period and wherein the control information carries information for a specified group of mobile stations only at predetermined times;

a traffic channel modulation generator that is configured to code each user traffic signal using a spread spectrum code unique to each traffic signal;

a summing network that is configured to add the calling channel signal and the coded traffic signals to provide a composite signal;

a mixer that is configured to modulate the composite signal on a radio frequency carrier to form a radio frequency signal; and

a transmit power amplifier that is configured to transmit the radio frequency signal via

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~~an antenna to the plurality of mobile stations.~~

50. (New) A code division multiple access mobile station that receives control information and user traffic signals from a first base station comprising:

a radio receiver receiving a radio frequency signal at the mobile station, the radio frequency signal including control information coded using a spread spectrum code unique to control information to form a calling channel signal, wherein a duration of each of a succession of data blocks in the calling channel signal is equal to a duration of a speech coder's analysis period, wherein the control information carries information for a specified group of mobile stations only at predetermined times and wherein the radio frequency signal further includes a user traffic signal coded using a spread spectrum code unique to each traffic signal, said calling channel signal and said coded traffic signal being combined to provide a composite signal; and

a correlator that is configured to decode the received signal to extract at least one of control information and traffic information intended for the mobile station, wherein the control information is used to determine a phase of the calling channel signal and the phase of the calling channel signal is used to extract the traffic information.

51. (New) A method for receiving a paging message at a code division multiple access mobile station, comprising:

determining a subgroup of data blocks associated with the mobile station, the subgroup of data blocks to be received on a calling channel;

receiving a paging message at said mobile station in said determined subgroup of data blocks and not in other subgroups of data blocks; and

decoding said subgroup of data blocks using a spread spectrum code assigned to said calling channel.

52. (New) A code division multiple access mobile station comprising:

means for determining a subgroup of data blocks associated with the mobile station, the subgroup of data blocks to be received on a calling channel;

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means for receiving a paging message at said mobile station in said determined subgroup of data blocks and not in other subgroups of data blocks; and

means for decoding said subgroup of data blocks using a spread spectrum code assigned to said calling channel.

53. (New) A code division multiple access mobile station, comprising:

a control processor that is configured to determine at said mobile station a subgroup of data blocks associated with the mobile station, the subgroup of data blocks to be received on a calling channel signal;

a calling channel demodulator that that is configured to decode calling information using a spread spectrum code assigned for use with calling information to demodulate the calling channel signal,

wherein a duration of data blocks in the calling channel signal is equal to a duration of a speech coder's analysis period, and

wherein paging messages intended for the mobile station are included only in the determined subgroup of the calling channel signal associated with the mobile station.

54. (New) The method of Claim 30 further comprising:

determining at said mobile station a subgroup of data blocks associated with the mobile station, the subgroup of data blocks to be received on a calling channel;

receiving a paging message at said mobile station in said determined subgroup of data blocks and not in other subgroups of data blocks; and

decoding said subgroup of data blocks at said mobile station using a spread spectrum code assigned to said calling channel.

55. (New) The system of Claim 34 further comprising:

means for determining at said mobile station a subgroup of data blocks associated with the mobile station, the subgroup of data blocks to be received on a calling channel;

means for receiving a paging message at said mobile station in said determined subgroup of data blocks and not in other subgroups of data blocks; and

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means for decoding said subgroup of data blocks at said mobile station using a spread spectrum code assigned to said calling channel.

56. (New) The system of Claim 44 further comprising:

C4 a control processor in at least one of the subgroup of mobile station that is configured to determine at said at least one of the subgroup of mobile stations the subgroup of data blocks associated with the at least one of the mobile stations, the subgroup of data blocks to be received on a calling channel signal;

a calling channel demodulator in the at least one of the subgroup of mobile stations that is configured to decode calling information using a spread spectrum code assigned for use with calling information to demodulate the calling channel signal.

wherein a duration of data blocks in the calling channel signal is equal to a duration of a speech coder's analysis period, and

wherein paging messages intended for the at least one of the subgroup of mobile stations are included only in the determined subgroup of the calling channel signal associated with the at least one of the subgroup of mobile station.

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